

**ABSTRACT**

A sealing technique is provided for forming complex and multiple seal configurations for fuel cells and other electrochemical cells. To provide a seal, for sealing chambers for oxidant, fuel and/or coolant, a groove network is provided extending through the various elements of the fuel cell assembly. A source of seal material is then connected to an external filling port and injected into the groove network, and the seal material is then cured to form the seal. There is thus formed a "seal in place", that is robust and can accommodate variations in tolerances and dimensions, and that can be bonded, where possible, to individual elements of the fuel cell assembly. This avoids the difficulty, labor intensive cost and complexity of manually assembling many individual gaskets into complex groove shapes and the like. The seal material can be selected to be comparable with a wide variety of gases, liquid coolants and the like.

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